

VERSION WITH MARKINGS TO SHOW CHANGES MADE

7. (Amended twice) A semiconductor substrate including at least one laterally unconstrained adhesive patch comprised of a viscous adhesive material, the at least one adhesive patch including a first surface adjacent and supported from beneath by said semiconductor substrate and a second, smaller exposed surface opposite said first surface exhibiting a generally planar portion over a substantial portion thereof, said semiconductor substrate including said at least one adhesive patch formed by:

providing a semiconductor substrate;

dispensing a viscous adhesive material on said semiconductor substrate; and

inverting said semiconductor substrate without effecting substantial lateral confinement of said adhesive material and maintaining said semiconductor substrate in an inverted position at least until said viscous adhesive material sufficiently stabilizes so as to exhibit a desired stable shape and a lateral boundary defining sizes of said first and second surfaces of said at least one adhesive patch and wherein at least a substantial portion of said second, smaller surface of said adhesive patch exhibits a generally planar configuration and said size of said second, smaller surface is smaller than said size of said first surface.

15. (Amended three times) A flip-chip including at least one laterally unconstrained conductive bump comprised of a viscous conductive material, the at least one conductive bump exhibiting a height-to-width ratio of at least approximately 3 to 1 and including a first surface adjacent and supported from beneath by said flip-chip and a second exposed surface opposite said first surface exhibiting a generally planar portion over a substantial portion thereof, said flip chip including said at least one conductive bump formed by:

providing said flip-chip with at least one bond pad;

dispensing a viscous conductive material on said flip-chip to define at least one conductive bump of a selected configuration exhibiting a height-to-width ratio of at least approximately 3 to 1,

said at least one conductive bump in electrical communication with said at least one bond pad of said flip-chip and including a first surface adjacent said flip-chip and a second surface opposite said first surface; and

inverting said flip-chip without substantial lateral confinement of said viscous conductive material and maintaining said flip-chip in an inverted position at least until said conductive material substantially stabilizes so as to exhibit a desired stable shape and lateral boundary substantially defining sizes of said first and second surfaces of said at least one conductive bump and wherein a substantial portion of said second surface of said at least one conductive bump exhibits a generally planar configuration.

46. (Amended) A semiconductor substrate including at least one laterally unconstrained adhesive patch comprised of a viscous adhesive material, the at least one adhesive patch including a first surface adjacent and supported from beneath by said semiconductor substrate and a second smaller, exposed surface opposite said first surface, said second smaller, exposed surface exhibiting a generally planar portion over a substantial portion thereof.

57. (Amended) A flip-chip including at least one laterally unconstrained conductive bump comprised of a viscous conductive material, the at least one conductive bump exhibiting a height-to-width ratio of at least approximately 3 to 1 and including a first surface adjacent and supported from beneath by said flip-chip and a second exposed surface opposite said first surface, said second exposed surface exhibiting a generally planar portion over a substantial portion thereof.